

# Work Order ID 86957

**\*86957\***

Page 1

July-09-12 3:00:13 PM

Item ID: D2574

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Saddle, Aft In 205

Start Date: 7/10/12 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 8/17/12 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Run Start

**\*NR1\***

Stop

**\*NR2\***

Approvals:

Process Plan: MLJ

Date: 12/07/10

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2574

Rev E

100

0.00

**\*100\***

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Program Batch No. 86957 Double check by: FK 1-Machine Step  
No 1 per Folio FA051 and inspect per attached Dimension Sheets 2-Machine  
Step No 2 per Folio FA051 and inspect per attached Dimension Sheets 3-  
Machine Step No 3 per Folio FA051 and insp

FK 12/09/06

PD 12/09/05

6

0

110

0.00

**\*110\***

CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

Conventional Milling Machine

Machine keyway as per dwg D2573 & D2574

FK 12/09/06

6

0

120

QC2- Inspect parts off machine FAI/FAIB

0.00

**\*120\***

QC

Memo

0.00

Quality Control

FK 12/09/06

6

0

★ SEE BACK OF W/D

PT07  
last page

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 86957

**\*86957\***

Page 2

July-09-12 3:00:13 PM

Item ID: D2574 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Saddle, Aft In 205  
 Start Date: 7/10/12 Start Qty: 6.00 **\*6\*** Cust Item ID:  
 Required Date: 8/17/12 Req'd Qty: 6.00 **\*6\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 0.00	B.A	12/09/10		6	0		
140 <b>*140*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00 0.00				6	70	12-9-11	
150 <b>*150*</b> Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum  Memo START TIME: 2:15 FINISH TIME: 3:20 OVEN TEMPERATURE: 2:45	0.00 0.00				6X	0		mf 12/09/11

m121841

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 86957****\*86957\***

Page 3

July-09-12 3:00:13 PM

Item ID: D2574

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Saddle, Aft In 205

Start Date: 7/10/12 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 8/17/12 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00							
<b>*160*</b>									
QC	Memo	0.00				64	4	11410416	
Quality Control									
170	Identify as per dwg & Stock Location: <b>442</b>	0.00							
<b>*170*</b>									
Packaging	Memo	0.00							
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
<b>*180*</b>									
QC	Memo	0.00							
Quality Control									

51 / 6 SL 12/9/12

12/9/13

12-09-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July-09-12 3:00:13 PM

Page 1

Work Order ID: 86957

Parent Item: D2574

Parent Item Name: Saddle, Aft In 205

Start Date: 7/10/12

Required Date: 8/17/12

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev: I As Per RevE 06-01-27 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-005 Saddle Billet		Manufactured	No			110	Each	41.0000	1	6	90	12/09/05	

Location

Loc Qty

Loc Code

MAT041

2

76838

2

MAT044

39

79874

19

81973

4

85429

16

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	<b>86957</b>
<b>Description: Saddle, Aft Inboard</b>	<b>Part Number:</b>	<b>D2574</b>
<b>Inspection Dwg: D2574 Rev. E</b>		<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	1	2	3	4		
A	0.438	0.443		.439	.439	.439	.439		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.000	8.004	8.000	8.000		
F	0.490	0.510		.499	.500	.500	.501		
G	0.257	0.262		.258	.258	.258	.258		
H	0.375	0.380		.377	.377	.377	.377		
I	0.490	0.510		.500	.500	.500	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.567	.569	.568	.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		.127	.127	.127	.127		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.251	.251	.251	.251		
S	0.115	0.135		.123	.124	.126	.127		
T	0.178	0.198		.188	.188	.188	.188		
U	3.210	3.250		3.230	3.230	3.230	3.230		
V	0.230	0.250		.238	.239	.240	.238		
W	0.115	0.135		.132	.132	.132	.131		
X	0.307	0.312		.311	.311	.311	.311		
Y	0.760	0.765		.761	.761	.761	.761		
Z	0.352	0.372		.364	.365	.365	.365		
AA	0.470	0.530	.500	.500	.500	.500	.500		
AB	0.615	0.635		.0626	.0626	.0626	.0626		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.247	.249	.249	.248		
AE	1.500	1.520		1.514	1.513	1.513	1.514		
AF	0.115	0.135		.135	.135	.135	.135		
AG	0.240	0.280		.265	.265	.265	.265		
AH	0.240	0.260		.248	.250	.250	.248		
AI	2.000	2.020		2.006	2.006	2.005	2.005		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

Measured by:	FK
Date:	12/09/06

Audited by:	K.A
Date:	12/09/10

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	86957
<b>Description:</b> Saddle, Aft Inboard		<b>Part Number:</b>	D2574
<b>Inspection Dwg:</b> D2574 Rev. E		<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	5	6	3	4		
A	0.438	0.443		.439	.439				
B	1.745	1.755		1.750	1.750				
C	3.495	3.505		3.500	3.500				
D	1.745	1.755		1.750	1.750				
E	7.990	8.010		8.000	8.001				
F	0.490	0.510		.500	.500				
G	0.257	0.262		.258	.258				
H	0.375	0.380		.377	.377				
I	0.490	0.510		.500	.500				
J	1.174	1.184		1.179	1.179				
K	0.558	0.578		.568	.568				
L	1.174	1.184		1.179	1.179				
M	1.365	1.375		1.370	1.370				
N	2.495	2.505		2.500	2.500				
O	4.119	4.129		4.124	4.124				
P	0.115	0.135		.127	.128				
Q	0.115	0.135		.135	.135				
R	0.240	0.260		.251	.251				
S	0.115	0.135		.129	.127				
T	0.178	0.198		.188	.188				
U	3.210	3.250		3.230	3.230				
V	0.230	0.250		.238	.239				
W	0.115	0.135		.133	.133				
X	0.307	0.312		.311	.311				
Y	0.760	0.765		.761	.761				
Z	0.352	0.372		.365	.365				
AA	0.470	0.530		.500	.500				
AB	0.615	0.635		.627	.627				
AC	0.053	0.073		.063	.063				
AD	0.240	0.260		.249	.249				
AE	1.500	1.520		1.514	1.5145				
AF	0.115	0.135		.135	.135				
AG	0.240	0.280		.265	.265				
AH	0.240	0.260		.249	.249				
AI	2.000	2.020		2.005	2.006				
AJ	0.023	0.043		.033	.033				
Accept/Reject									

Measured by:	FK
Date:	12/09/06

Audited by:	G.A
Date:	12/09/10

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O: 86957

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2574 PAR #: \_\_\_\_\_ Fault Category: Machining NCR: Yes No DQA: OK Date: 12/09/18  
 Resolution: 12-1500 Disposition: use as is QA: N/C Closed: OK Date: 12/9/18

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/9/10	110	Slot is offset by 0.002. (0.005 dug max). R.C. operator set up manual mill incorrectly.	GP DAS 12 089 12/9/10	Acceptable. Test fitted on skid tube.	GP 12/9/10	D.A. 12/09/10	DAS 12 089 12/9/10	DAS 12 089 12/9/10
		Training RC MISSING INFORMATION						

NOTE: Date &amp; initial all entries